

What is claimed is:

1. A propeller-turbine engine arrangement comprising:
a gas generator engine;
5 a gearbox connected to the engine;
a propeller hub connected to the gearbox; and
two propellers arranged axially offset relative to each other on the propeller
hub which rotate in the same direction.
- 10 2. An arrangement in accordance with Claim 1, wherein the two propellers are a
front propeller and a rear propeller and the front propeller is circumferentially
offset to the rear propeller.
- 15 3. An arrangement in accordance with Claim 2, wherein the front propeller and
the rear propeller have the same number of blades.
4. An arrangement in accordance with Claim 3, wherein the propeller blades of
both propellers can be pitch-controlled.
- 20 5. An arrangement in accordance with Claim 4, wherein the propeller hub
includes an annular boundary-layer suction inlet positioned between both
propellers.
- 25 6. An arrangement in accordance with Claim 1, wherein the two propellers are a
front propeller and a rear propeller, and the front propeller and the rear
propeller have the same number of blades.
7. An arrangement in accordance with Claim 6, wherein the propeller blades of
both propellers can be pitch-controlled.

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8. An arrangement in accordance with Claim 7, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 5 9. An arrangement in accordance with Claim 1, wherein each propeller includes a plurality of blades and the blades of both propellers can be pitch-controlled.
- 10 10. An arrangement in accordance with Claim 9, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
11. An arrangement in accordance with Claim 1, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 15 12. An arrangement in accordance with Claim 2, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 20 13. An arrangement in accordance with Claim 3, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 25 14. An arrangement in accordance with Claim 2, wherein the propeller blades of both propellers can be pitch-controlled.
15. An arrangement in accordance with Claim 14, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.

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16. An arrangement in accordance with Claim 7, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 5 17. An arrangement in accordance with Claim 5, wherein the suction inlet is in the form of at least one of an annular inlet, a scoop inlet and a NACA type inlet.
18. An arrangement in accordance with Claim 11, wherein the suction inlet is in the form of at least one of an annular inlet, a scoop inlet and a NACA type inlet.
- 10 19. An arrangement in accordance with Claim 2, wherein the circumferential offset is variable.
- 15 20. An arrangement in accordance with Claim 19, including a mechanism positioned between the front blade and the rear blade for adjusting the circumferential offset.
- 20 21. An arrangement in accordance with Claim 20, wherein mechanism for adjusting the circumferential offset can adjust the circumferential offset by up to a circumferential pitch between adjacent blades.
22. A propeller arrangement for a gas generator engine, comprising;
a propeller hub connectable to the engine; and
25 two propellers arranged axially offset relative to each other on the propeller hub which rotate in the same direction.
23. An arrangement in accordance with Claim 22, wherein the two propellers are a front propeller and a rear propeller and the front propeller is circumferentially offset to the rear propeller.
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24. An arrangement in accordance with Claim 23, wherein the front propeller and the rear propeller have the same number of blades.
- 5 25. An arrangement in accordance with Claim 24, wherein the propeller blades of both propellers can be pitch-controlled.
26. An arrangement in accordance with Claim 25, wherein the propeller hub includes an annular boundary-layer suction inlet positioned between both propellers.
- 10 27. An arrangement in accordance with Claim 23, wherein the circumferential offset is variable.
- 15 28. An arrangement in accordance with Claim 27, including a mechanism positioned between the front blade and the rear blade for adjusting the circumferential offset.
- 20 29. An arrangement in accordance with Claim 28, wherein mechanism for adjusting the circumferential offset can adjust the circumferential offset by up to a circumferential pitch between adjacent blades.